

C.A.S.E. Software for the Addiction Severity Index/Biopsychosocial

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The Addiction Severity Index (ASI) was first published in 1980 [1], and is now in its fifth edition [2]. The ASI was created for the special purpose of enabling a group of clinical researchers at a Veterans administration treatment center to evaluate treatment outcome in a six-program substance abuse treatment network. The ASI has grown into both a clinical and a research tool. The ASI is a structured 45 minute interview in which an evaluation for treatment, counseling and support is assessed. There are approximately 200 questions about lifetime problems, and problems during the past 30 days. For each of seven areas there are interviewer severity rating and mathematically computed composite scores. The reliability and validity of the ASI has been extensively evaluated for clients in numerous settings [2]. The ASI is used in over 12 countries and translated into at least 5 foreign languages [German, Dutch, Russian, Spanish, French]. The ASI is now required for all clients entering substance abuse treatment in several states in the U.S. and the ASI composite scores are part of several state-wide drug data bases. In 1991, a new computer software expert system C.A.S.E. (Computer Assisted Severity Evaluation) was developed which has undergone continued upgrading and expansion.

Many treatment programs which use the ASI are also required to collect additional extensive demographical and historical data for use in developing a comprehensive clinical Biopsychosocial of the client. A Master Treatment Plan is then developed from this data. The Addiction Severity Index Biopsychosocial (ASIBPS) was developed in 1992 to merge the two tasks into one. The ASIBPS supports the treatment program's effort to obtain full clinical data in those areas vital to understanding the client's recent and long-term history and behavior. The ASIBPS continues to use the ASI in developing composite scores and severity ratings. The ASIBPS provides the opportunity for gathering greatly expanded and more in-depth information about the client in areas considered significant and mandatory by most state treatment facility licensing boards and by JCAHO. The ASIBPS also utilizes the C.A.S.E. software system and runs on MS-DOS computers. The software

is written in Clipper and C++. The software for the ASIBPS produces a 14 to 16 page narrative individualized clinical biopsychosocial covering the following areas:

- 1) General Demographic Information;
- 2) Medical History and Status;
- 3) Employment History and Status;
- 4) Legal History and Status;
- 5) Childhood History and Status;
- 6) Family /Social Relationships;
- 7) Psychiatric History and Status;
- 8) Drug and Alcohol History and Status;
- 9) Spirituality.

Each sentence in the report is built one word at a time from the response. There are no pre-programmed paragraphs. The software has a built-in word processor which allows for as many clinical comments and recommendations which the interviewer/therapist feels necessary. These are captured after significant questions and also at the end of each section. The tone of the computer generated biopsychosocial as well as the severity ratings and validity assessments are guided by the interviewer/therapist. There is a built-in statistical package including graphics capability for displaying severity and composite scores, and correlations among scores. There is also the ability to export in ASCII files all numerical data. The entire C.A.S.E. ASIBPS report can be sent to either a printer or to an ASCII file. The interview can be performed directly on the computer without a paper and pencil administration. There is significant error checking and cross checking built into the software. There are evaluations of the missing or incomplete responses. The entire package is menu driven.

References

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2. McLellan, A.T., Kushner, H., Metzger, D., Peters, R., Smith, I., Grissom, G., Pettinati, H., and Argeriou, M. The Fifth Edition of the Addiction Severity Index. *Journal of Substance Abuse Treatment*, 9:199-213, 1992.